Name: _____

Date: _____

Simplifying Polynomials

1 Are these "like" terms?

x^2 and x $5x$ and $-3x$

☐ **Yes**   ☐ **Yes**
☐ **No**   ☐ **No**

2 Are these "like" terms?

$2y$ and $2x$ $3xy$ and $4yx$

☐ **Yes**   ☐ **Yes**
☐ **No**   ☐ **No**

3 Simplify.

$$4x^2 + 7 + 2x^2 + 3$$

4 Simplify.

$$12x^2 - 7 - 10x^2 + 4$$

5 Simplify.

$$-3x^2 + 4x^2 - 3x + 4x$$

6 Simplify.

$$-x^4 - x^4 + 7x + 5x - x + 3$$

7 Simplify.

$$2x^3 + 5x^2 + 10x^2 + 20 + x^3$$

8 Simplify.

$$x^3 - 5x^2 - 10x^3 + 8x + 9x^2$$

9 Simplify.

$$xy + 3x + 8y - x + 5 - 2y$$

10 Simplify. (Careful! This one is tricky.)

$$6yx + 3x^2y - 4y^2x + 2xy$$